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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,927	05/20/1999	TAKASHI KOBAYASHI	35.C13533	5816

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
ODLAND, DAVID E	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/314,927	KOBAYASHI ET AL.	
	Examiner	Art Unit	
	David Odland	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,10,13-15,18 and 30-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7,10,13-15,18 and 30-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 09/17/2002.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,5,6,10,15,18,31,32,34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (USPN 6,115,358), hereafter referred to as Jones.

Referring to claims 1 and 18, Jones discloses an apparatus having different transfer rates, the apparatus comprising:

a communication unit adapted to transmit a predetermined packet to destinations at a predetermined transfer rate (a source, which inherently contains a communications unit, sends a resource management (RM) cell to network destinations at some determined rate (see column 1 lines 10-42)); and

a control unit adapted to discriminate a maximum transfer rate between the apparatus and the destinations, based on a response transmitted from each of the destinations (the destination sets an Explicit Rate (ER) field of the RM cell and transmits the RM cell back to the source, wherein the source uses the ER filed to determine the maximum rate it is allowed to transmit (see

column 1 lines 10-42)). Note, inherently some type of control unit is present in the source in order to read the ER field and adjust the rate at which the source transmits.

Jones does not disclose that the source communicates with many destinations and bases the rate adjustment on each of the responses from the destinations. However, having end nodes (sources) in ATM networks communicate with many other end nodes (destinations), will increase the flexibility of the network by allowing a plurality of nodes to communicate rather than only two nodes. Therefore, it would have been obvious to one skilled in the art at the time of the invention to have the source disclosed in Jones communicate with a plurality of destinations and make the rate adjustment based on RM cells received from those destinations because doing so would make the system of Jones more flexible and more reliable.

Referring to claims 5 and 31, Jones discloses the apparatus discussed above. Furthermore, Jones discloses that the communication unit transmits data to the destinations at the maximum transfer rate after discriminating the maximum transfer rate (the source modifies its transmission rate based on the ER field in the returns RM cell and thus transmits cells to the destinations at this rate (see column 1 lines 10-42)).

Referring to claims 6 and 32, Jones discloses the apparatus discussed above. Furthermore, Jones discloses that the communication unit packetizes the data into at least one packet (the source forms an RM cell which it sends to the destinations (see column 1 lines 10-42)). Jones does not disclose that the source broadcasts the cells to all the destinations. However, the technique of broadcasting is a well-established, standardized technique for a source to send messages to all of its destinations. Therefore, it would have been obvious to one skilled

in the art at the time of the invention to broadcast the RM cells from the source to all the destinations, in the system of Jones, because doing so is a well-established standard.

Referring to claims 10 and 34, Jones discloses the apparatus discussed above. Jones does not disclose that the communication unit conforms to an IEEE 1394 standard. However, it would have been obvious to one skilled in the art at the time of the invention to have the source disclosed in Jones conform to the IEEE 1394 standard because such a standard is a well established and well known data communication protocol standard. Therefore, using the IEEE 1394 standard in the apparatus of Jones would decrease the development cost since it already exists and a new protocol does not have to be created.

Referring to claims 15 and 37, Jones discloses the apparatus as discussed above. Furthermore, the apparatus in Jones communicates using the ATM protocol, which include in the ATM cells, VPI and VCI values which indicate the logical connections between sources and destinations (see columns 1 and 2)).

4. Claims 4 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Boer (USPN 5,706,428), hereafter referred to as Boer.

Referring to claims 4 and 30, Jones discloses the apparatus as discussed above. Jones does not disclose that the apparatus retransmits the packet at a lower rate in the absence of a response. However, Boer discloses of an apparatus wherein the communication unit retransmits the predetermined packet at a transfer rate lower that the predetermined transfer rate, if at least one response is absent (a station retransmits an original message if an acknowledgment is not received in a particular time (see column 8 lines 6-9)). It would have been obvious to one skilled

in the art at the time of the invention to retransmit the RM cell disclosed in Jones a lower rate when a response RM cell is not received, as taught in Boer, because as Boer points in column 8 lines 1-3, such transmitting at a lower rate make the data more robust. Furthermore, since no response is received at the source, this implies that there is congestion or loss of data in the network and therefore retransmitting the data and waiting for a response will help insure the data is received at the destination and thus make the system of Jones more reliable.

5. Claims 7 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Sindhushayana et al. (USPN 6,064,678), hereafter referred to as '678.

Referring to claims 7 and 33, Jones discloses the apparatus discussed above. Jones does not disclose that the amount of data packetized in each packet is variable, based on the maximum transfer rate. However, '678 discloses a communication method for optimizing packet lengths wherein the variable packet lengths are selected based on a maximum throughput rate that is to be achieved (see column 2 lines 55-65)). It would have been obvious to one skilled in the art at the time of the invention to use the variable length packet method taught in '678, in the system of Jones because since the destination nodes may have different maximum transfer rates the source node can adjust its packet sizes to accommodate these differences and therefore increase the overall adaptability of the Jones system.

6. Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Fischer (USPN 5,331,634), hereafter referred to as Fischer.

Referring to claims 13 and 35, Jones discloses the apparatus discussed above. Jones does not disclose that the predetermined packet includes an inquiry as to the abilities of the destination. However, Fischer discloses of a system wherein the predetermined packet includes a command that inquires of an ability of the destinations (prior to sending a data packet the source node a packet to the destination inquiring of the capability of the destination node to receive further packets (see column 1 lines 62-66)). It would have been obvious to one skilled in the art at the time of the invention to utilize the inquiry technique, as taught by Fischer, in the system of Jones because doing so would allow the source to know what type of data and how much data to send to the destination thereby making the system of Jones more efficient.

7. Claims 14 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Fischer (USPN 5,077,732), hereafter referred to as Fischer '732.

Referring to claims 14 and 36, Jones discloses the apparatus discussed above. Jones does not disclose that the predetermined packet includes information about the apparatus's abilities. However, Fisher '732 discloses a communications system wherein predetermined packets are sent from source to destinations and include information about an ability of the source (an enhanced communications node communicated its capabilities to other enhanced nodes so that they can use their enhanced communication capabilities to communicate (see claim 37)). It would have been obvious to one skilled in the art at the time of the invention to inform destination nodes of a sources capabilities, as taught in Fischer '732, in the system of Jones because if the destination nodes know the capabilities of the source node a determination can be

made as to the best way to communicate between the two, thereby making the system of Jones more efficient.

Response to Arguments

8. Applicant's arguments with respect to claim1 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

February 4, 2003

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600